Index Technical Section, Vol. 87, Paper Trade Journal

(July to December, 1928)

Prepared by Clarence J. West, Chairman, Committee on Abstracts and Bibliography

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A New Stainless Steel

While stainless iron and steels have made quite remarkable progress in the past few years in this country, their use was attended with some production difficulties and they showed definite limitations in certain applications. However, there are few industries that have not shown the imprint of these alloys in improved products, reduced costs or increased production.

Up to the present time, straight iron-chromium alloys have had the greatest application, but demand for an even better product has resulted in the addition of a considerable proportion of nickel to the regular stainless analysis.

Alloys of this type were first developed by Dr. Benno Strauss, of the Krupp Works, Germany. They have been extensively used in Germany since their introduction but until recently have attracted little or no attention in this country. Today their valuable properties are beginning to be realized and they are rapidly supplanting the straight iron-chromium alloys in many applications.

The addition of nickel greatly increases the corrosion resistance of the alloy and provides complete immunity to many materials which attack the straight stainless irons. However the mere addition of nickel to the stainless analysis in itself will not produce maximum corrosion resistance. The full advantage of the addition is not obtained until the alloy has been properly processed according to the specifications originated by Dr. Strauss.

This improved stainless steel hence is being produced in this country under Krupp Nirosta patents and under the supervisory direction of Dr. Benno Strauss. It will be known as Enduro Nirosta Steel, the principal type being marketed as Enduro KA2.

Three companies are licensed to operate under these patents: Central Alloy Steel Corporation of Massillon, Ohio, Ludlum Steel Co., of Watervliet, N. Y., and The Babcock & Wilcox Tube Company of New York City. These three licenses have organized for joint research and promotion on this new stainless product, and it is confidently expected that it will find broad application throughout industry.

Enduro KA2 is resistant to air, water, dilute solutions and acids at high temperatures and at high pressures. It can be deep drawn, wire drawn, spun, readily machined and welded by either electricity or gas. It may be polished to a mirror surface. It is nonmagnetic and has approximately the ductility of copper. It is now available in all standard forms from the three manufacturers licensed to produce it.

These manufacturers recommend tests of the new material, even in applications where the ordinary stainless material may not have been entirely satisfactory, as Enduro KA2 has many new and entirely distinctive properties.

Start Work on Fourdrinier for Soviet

[FROM OUR REGULAR CORRESPONDENT]

CARTHAGE, N. Y., January 21, 1929.—The Bagley and Sewall Co. has started work on the construction of the big papermaking machine ordered by the Soviet government of Russia. The machine is to be 234 inches wide and will be one of the largest ever turned out in the Watertown plant. It is a high speed machine and will be used for the manufacture of news print. It is being built for the Volga River Pulp and Paper Company and is to be shipped to the mill at Velahkna. The construction of the machine was originally planned for completion by August 1, but, according to present expectations, it will probably be ready for delivery by June 1. The Watertown plant is now being operated at capacity in filling the requirements of this latest order.

Du Pont Rayon Co. With TAPPI

The first manufacturer of rayon to become a corporate member of the Technical Association is the DuPont Rayon Company of Buffalo, N. Y. Although DuPont does not manufacture wood pulp or paper it is a large chemical converter of the highest grade of sulphite pulp. The members of the research and technical staffs of this company must of necessity be thoroughly acquainted with the fundamental problems of cellulose chemistry. Inasmuch as the Technical Association is giving more attention than ever to the use requirements of pulp and paper the inclusion of such companies as the DuPont Rayon Company in the TAPPI membership will prove to be of mutual value.